DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS

FOURTH EDITION

TEXT REVISION

DSM-IV®-TR

AMERICAN PSYCHIATRIC ASSOCIATION

separation from home or from those to whom the child is attached. **Selective Mutism** is characterized by a consistent failure to speak in specific social situations despite speaking in other situations. **Reactive Attachment Disorder of Infancy or Early Childhood** is characterized by markedly disturbed and developmentally inappropriate social relatedness that occurs in most contexts and is associated with grossly pathogenic care. **Stereotypic Movement Disorder** is characterized by repetitive, seemingly driven, and nonfunctional motor behavior that markedly interferes with normal activities and at times may result in bodily injury. **Disorder of Infancy, Childhood, or Adolescence Not Otherwise Specified** is a residual category for coding disorders with onset in infancy, childhood, or adolescence that do not meet criteria for any specific disorder in the Classification.

Children or adolescents may present with problems requiring clinical attention that are not defined as mental disorders (e.g., Relational Problems, Problems Related to Abuse or Neglect, Bereavement, Borderline Intellectual Functioning, Academic Problem, Child or Adolescent Antisocial Behavior, Identity Problem). These are listed at the end of the manual in the section "Other Conditions That May Be a Focus of Clinical Attention" (see p. 731).

DSM-III-R included two anxiety disorders specific to children and adolescents, Overanxious Disorder of Childhood and Avoidant Disorder of Childhood, that have been subsumed under Generalized Anxiety Disorder and Social Phobia, respectively, because of similarities in essential features.

Mental Retardation

Diagnostic Features

The essential feature of Mental Retardation is significantly subaverage general intellectual functioning (Criterion A) that is accompanied by significant limitations in adaptive functioning in at least two of the following skill areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety (Criterion B). The onset must occur before age 18 years (Criterion C). Mental Retardation has many different etiologies and may be seen as a final common pathway of various pathological processes that affect the functioning of the central nervous system.

General intellectual functioning is defined by the intelligence quotient (IQ or IQ-equivalent) obtained by assessment with one or more of the standardized, individually administered intelligence tests (e.g., Wechsler Intelligence Scales for Children, 3rd Edition; Stanford-Binet, 4th Edition; Kaufman Assessment Battery for Children). Significantly subaverage intellectual functioning is defined as an IQ of about 70 or below (approximately 2 standard deviations below the mean). It should be noted that there is a measurement error of approximately 5 points in assessing IQ, although this may vary from instrument to instrument (e.g., a Wechsler IQ of 70 is considered to represent a range of 65–75). Thus, it is possible to diagnose Mental Retardation in

individuals with IQs between 70 and 75 who exhibit significant deficits in adaptive behavior. Conversely, Mental Retardation would not be diagnosed in an individual with an IQ lower than 70 if there are no significant deficits or impairments in adaptive functioning. The choice of testing instruments and interpretation of results should take into account factors that may limit test performance (e.g., the individual's sociocultural background, native language, and associated communicative, motor, and sensory handicaps). When there is significant scatter in the subtest scores, the profile of strengths and weaknesses, rather than the mathematically derived full-scale IQ, will more accurately reflect the person's learning abilities. When there is a marked discrepancy across verbal and performance scores, averaging to obtain a full-scale IQ score can be misleading.

Impairments in adaptive functioning, rather than a low IQ, are usually the presenting symptoms in individuals with Mental Retardation. *Adaptive functioning* refers to how effectively individuals cope with common life demands and how well they meet the standards of personal independence expected of someone in their particular age group, sociocultural background, and community setting. Adaptive functioning may be influenced by various factors, including education, motivation, personality characteristics, social and vocational opportunities, and the mental disorders and general medical conditions that may coexist with Mental Retardation. Problems in adaptation are more likely to improve with remedial efforts than is the cognitive IQ, which tends to remain a more stable attribute.

It is useful to gather evidence for deficits in adaptive functioning from one or more reliable independent sources (e.g., teacher evaluation and educational, developmental, and medical history). Several scales have also been designed to measure adaptive functioning or behavior (e.g., the Vineland Adaptive Behavior Scales and the American Association on Mental Retardation Adaptive Behavior Scale). These scales generally provide a clinical cutoff score that is a composite of performance in a number of adaptive skill domains. It should be noted that scores for certain individual domains are not included in some of these instruments and that individual domain scores may vary considerably in reliability. As in the assessment of intellectual functioning, consideration should be given to the suitability of the instrument to the person's sociocultural background, education, associated handicaps, motivation, and cooperation. For instance, the presence of significant handicaps invalidates many adaptive scale norms. In addition, behaviors that would normally be considered maladaptive (e.g., dependency, passivity) may be evidence of good adaptation in the context of a particular individual's life (e.g., in some institutional settings).

Degrees of Severity of Mental Retardation

Four degrees of severity can be specified, reflecting the level of intellectual impairment: Mild, Moderate, Severe, and Profound.

317	**Mild Mental Retardation:**	IQ level 50–55 to approximately 70
318.0	**Moderate Retardation:**	IQ level 35–40 to 50–55
318.1	**Severe Mental Retardation:**	IQ level 20–25 to 35–40
318.2	**Profound Mental Retardation:**	IQ level below 20 or 25

319 **Mental Retardation, Severity Unspecified,** can be used when there is a strong presumption of Mental Retardation but the person's intelligence is untestable by standard tests (e.g., with individuals too impaired or uncooperative, or with infants).

317 Mild Mental Retardation

Mild Mental Retardation is roughly equivalent to what used to be referred to as the educational category of "educable." This group constitutes the largest segment (about 85%) of those with the disorder. As a group, people with this level of Mental Retardation typically develop social and communication skills during the preschool years (ages 0–5 years), have minimal impairment in sensorimotor areas, and often are not distinguishable from children without Mental Retardation until a later age. By their late teens, they can acquire academic skills up to approximately the sixth-grade level. During their adult years, they usually achieve social and vocational skills adequate for minimum self-support, but may need supervision, guidance, and assistance, especially when under unusual social or economic stress. With appropriate supports, individuals with Mild Mental Retardation can usually live successfully in the community, either independently or in supervised settings.

318.0 Moderate Mental Retardation

Moderate Mental Retardation is roughly equivalent to what used to be referred to as the educational category of "trainable." This outdated term should not be used because it wrongly implies that people with Moderate Mental Retardation cannot benefit from educational programs. This group constitutes about 10% of the entire population of people with Mental Retardation. Most of the individuals with this level of Mental Retardation acquire communication skills during early childhood years. They profit from vocational training and, with moderate supervision, can attend to their personal care. They can also benefit from training in social and occupational skills but are unlikely to progress beyond the second-grade level in academic subjects. They may learn to travel independently in familiar places. During adolescence, their difficulties in recognizing social conventions may interfere with peer relationships. In their adult years, the majority are able to perform unskilled or semiskilled work under supervision in sheltered workshops or in the general workforce. They adapt well to life in the community, usually in supervised settings.

318.1 Severe Mental Retardation

The group with Severe Mental Retardation constitutes 3%–4% of individuals with Mental Retardation. During the early childhood years, they acquire little or no communicative speech. During the school-age period, they may learn to talk and can be trained in elementary self-care skills. They profit to only a limited extent from instruction in pre-academic subjects, such as familiarity with the alphabet and simple counting, but can master skills such as learning sight reading of some "survival" words. In their adult years, they may be able to perform simple tasks in closely supervised set-

tings. Most adapt well to life in the community, in group homes or with their families, unless they have an associated handicap that requires specialized nursing or other care.

318.2 Profound Mental Retardation

The group with Profound Mental Retardation constitutes approximately 1%–2% of people with Mental Retardation. Most individuals with this diagnosis have an identified neurological condition that accounts for their Mental Retardation. During the early childhood years, they display considerable impairments in sensorimotor functioning. Optimal development may occur in a highly structured environment with constant aid and supervision and an individualized relationship with a caregiver. Motor development and self-care and communication skills may improve if appropriate training is provided. Some can perform simple tasks in closely supervised and sheltered settings.

319 Mental Retardation, Severity Unspecified

The diagnosis of Mental Retardation, Severity Unspecified, should be used when there is a strong presumption of Mental Retardation but the person cannot be successfully tested by standardized intelligence tests. This may be the case when children, adolescents, or adults are too impaired or uncooperative to be tested or, with infants, when there is a clinical judgment of significantly subaverage intellectual functioning, but the available tests (e.g., the Bayley Scales of Infant Development, Cattell Infant Intelligence Scales, and others) do not yield IQ values. In general, the younger the age, the more difficult it is to assess for the presence of Mental Retardation except in those with profound impairment.

Recording Procedures

The specific diagnostic code for Mental Retardation is selected based on the level of severity as indicated above and is coded on Axis II. If Mental Retardation is associated with another mental disorder (e.g., Autistic Disorder), the additional mental disorder is coded on Axis I. If Mental Retardation is associated with a general medical condition (e.g., Down syndrome), the general medical condition is coded on Axis III.

Associated Features and Disorders

Associated descriptive features and mental disorders. No specific personality and behavioral features are uniquely associated with Mental Retardation. Some individuals with Mental Retardation are passive, placid, and dependent, whereas others can be aggressive and impulsive. Lack of communication skills may predispose to disruptive and aggressive behaviors that substitute for communicative language. Some general medical conditions associated with Mental Retardation are characterized by certain behavioral symptoms (e.g., the intractable self-injurious behavior associated with Lesch-Nyhan syndrome). Individuals with Mental Retardation may be

vulnerable to exploitation by others (e.g., being physically and sexually abused) or being denied rights and opportunities.

Individuals with Mental Retardation have a prevalence of comorbid mental disorders that is estimated to be three to four times greater than in the general population. In some cases, this may result from a shared etiology that is common to Mental Retardation and the associated mental disorder (e.g., head trauma may result in Mental Retardation and in Personality Change Due to Head Trauma). All types of mental disorders may be seen, and there is no evidence that the nature of a given mental disorder is different in individuals who have Mental Retardation. The diagnosis of comorbid mental disorders is, however, often complicated by the fact that the clinical presentation may be modified by the severity of the Mental Retardation and associated handicaps. Deficits in communication skills may result in an inability to provide an adequate history (e.g., the diagnosis of Major Depressive Disorder in a nonverbal adult with Mental Retardation is often based primarily on manifestations such as depressed mood, irritability, anorexia, or insomnia that are observed by others). More often than is the case in individuals without Mental Retardation, it may be difficult to choose a specific diagnosis and in such cases the appropriate Not Otherwise Specified category can be used (e.g., Depressive Disorder Not Otherwise Specified). The most common associated mental disorders are Attention-Deficit/Hyperactivity Disorder, Mood Disorders, Pervasive Developmental Disorders, Stereotypic Movement Disorder, and Mental Disorders Due to a General Medical Condition (e.g., Dementia Due to Head Trauma). Individuals who have Mental Retardation due to Down syndrome may be at higher risk for developing Dementia of the Alzheimer's Type. Pathological changes in the brain associated with this disorder usually develop by the time these individuals are in their early 40s, although the clinical symptoms of dementia are not evident until later.

Associations have been reported between specific etiological factors and certain comorbid symptoms and mental disorders. For example, fragile X syndrome appears to increase the risk for Attention-Deficit/Hyperactivity Disorder and Social Phobia; individuals with Prader-Willi syndrome may exhibit hyperphagia and compulsivity, and those with William's syndrome may have an increased risk of Anxiety Disorders and Attention-Deficit/Hyperactivity Disorder.

Predisposing factors. Etiological factors may be primarily biological or primarily psychosocial, or some combination of both. In approximately 30%–40% of individuals seen in clinical settings, no clear etiology for the Mental Retardation can be determined despite extensive evaluation efforts. Specific etiologies are more likely to be identified in individuals with Severe or Profound Mental Retardation. The major predisposing factors include:

Heredity: These factors include inborn errors of metabolism inherited mostly through autosomal recessive mechanisms (e.g., Tay-Sachs disease), other single-gene abnormalities with Mendelian inheritance and variable expression (e.g., tuberous sclerosis), and chromosomal aberrations (e.g., translocation Down syndrome, fragile X syndrome). Advances in genetics will likely increase the identification of heritable forms of Mental Retardation.

Early alterations of embryonic development: These factors include chromosomal changes (e.g., Down syndrome due to trisomy) or prenatal damage due to toxins (e.g., maternal alcohol consumption, infections).

Environmental influences: These factors include deprivation of nurturance and of social, linguistic, and other stimulation.

Mental disorders: These factors include Autistic Disorder and other Pervasive Developmental Disorders.

Pregnancy and perinatal problems: These factors include fetal malnutrition, prematurity, hypoxia, viral and other infections, and trauma.

General medical conditions acquired in infancy or childhood: These factors include infections, traumas, and poisoning (e.g., due to lead).

Associated laboratory findings. Other than the results of psychological and adaptive behavior tests that are necessary for the diagnosis of Mental Retardation, there are no laboratory findings that are uniquely associated with Mental Retardation. Diagnostic laboratory findings may be associated with a specific accompanying general medical condition (e.g., chromosomal findings in various genetic conditions, high blood phenylalanine in phenylketonuria, or abnormalities on central nervous system imaging).

Associated physical examination findings and general medical conditions. There are no specific physical features associated with Mental Retardation. When Mental Retardation is part of a specific syndrome, the clinical features of that syndrome will be present (e.g., the physical features of Down syndrome). The more severe the Mental Retardation (especially if it is severe or profound), the greater the likelihood of neurological (e.g., seizures), neuromuscular, visual, auditory, cardiovascular, and other conditions.

Specific Culture, Age, and Gender Features

Care should be taken to ensure that intellectual testing procedures reflect adequate attention to the individual's ethnic, cultural, or linguistic background. This is usually accomplished by using tests in which the individual's relevant characteristics are represented in the standardization sample of the test or by employing an examiner who is familiar with aspects of the individual's ethnic or cultural background. Individualized testing is always required to make the diagnosis of Mental Retardation. The prevalence of Mental Retardation due to known biological factors is similar among children of upper and lower socioeconomic classes, except that certain etiological factors are linked to lower socioeconomic status (e.g., lead poisoning and premature births). In cases in which no specific biological causation can be identified, the Mental Retardation is usually milder (although all degrees of severity are represented) and individuals from lower socioeconomic classes are overrepresented. Developmental considerations should be taken into account in evaluating impairment in adaptive skills because certain of the skill areas are less relevant at different ages (e.g., use of community resources or employment in school-age children). Mental Retardation is more common among males, with a male-to-female ratio of approximately 1.5:1.

Prevalence

The prevalence rate of Mental Retardation has been estimated at approximately 1%. However, different studies have reported different rates depending on definitions used, methods of ascertainment, and population studied.

Course

The diagnosis of Mental Retardation requires that the onset of the disorder be before age 18 years. The age and mode of onset depend on the etiology and severity of the Mental Retardation. More severe retardation, especially when associated with a syndrome with a characteristic phenotype, tends to be recognized early (e.g., Down syndrome is usually diagnosed at birth). In contrast, Mild Retardation of unknown origin is generally noticed later. In more severe retardation resulting from an acquired cause, the intellectual impairment will develop more abruptly (e.g., retardation following an encephalitis). The course of Mental Retardation is influenced by the course of underlying general medical conditions and by environmental factors (e.g., educational and other opportunities, environmental stimulation, and appropriateness of management). If an underlying general medical condition is static, the course is more likely to be variable and to depend on environmental factors. Mental Retardation is not necessarily a lifelong disorder. Individuals who had Mild Mental Retardation earlier in their lives manifested by failure in academic learning tasks may, with appropriate training and opportunities, develop good adaptive skills in other domains and may no longer have the level of impairment required for a diagnosis of Mental Retardation.

Familial Pattern

Because of its heterogeneous etiology, no familial pattern is applicable to Mental Retardation as a general category. The heritability of Mental Retardation is discussed under "Predisposing Factors" (see p. 45).

Differential Diagnosis

The diagnostic criteria for Mental Retardation do not include an exclusion criterion; therefore, the diagnosis should be made whenever the diagnostic criteria are met, regardless of and in addition to the presence of another disorder. In **Learning Disorders** or **Communication Disorders** (unassociated with Mental Retardation), the development in a specific area (e.g., reading, expressive language) is impaired but there is no generalized impairment in intellectual development and adaptive functioning. A Learning Disorder or Communication Disorder can be diagnosed in an individual with Mental Retardation if the specific deficit is out of proportion to the severity of the Mental Retardation. In **Pervasive Developmental Disorders,** there is qualitative impairment in the development of reciprocal social interaction and in the development of verbal and nonverbal social communication skills. Mental Retardation often accompanies Pervasive Developmental Disorders.

Some cases of Mental Retardation have their onset after a period of normal functioning and may qualify for the additional diagnosis of **dementia.** A diagnosis of dementia requires that the memory impairment and other cognitive deficits represent a significant decline from a previously higher level of functioning. Because it may be difficult to determine the previous level of functioning in very young children, the diagnosis of dementia may not be appropriate until the child is between ages 4 and 6 years. In general, for individuals under age 18 years, the diagnosis of dementia is

made only when the condition is not characterized satisfactorily by the diagnosis of Mental Retardation alone.

Borderline Intellectual Functioning (see p. 740) describes an IQ range that is higher than that for Mental Retardation (generally 71–84). As discussed earlier, an IQ score may involve a measurement error of approximately 5 points, depending on the testing instrument. Thus, it is possible to diagnose Mental Retardation in individuals with IQ scores between 71 and 75 if they have significant deficits in adaptive behavior that meet the criteria for Mental Retardation. Differentiating Mild Mental Retardation from Borderline Intellectual Functioning requires careful consideration of all available information.

Relationship to Other Classifications of Mental Retardation

The classification system of the American Association on Mental Retardation (AAMR) includes the same three criteria (i.e., significantly subaverage intellectual functioning, limitations in adaptive skills, and onset prior to age 18 years). In the AAMR classification, the criterion of significantly subaverage intellectual functioning refers to a standard score of approximately 70–75 or below (which takes into account the potential measurement error of plus or minus 5 points in IQ testing). Furthermore, DSM-IV specifies levels of severity, whereas the AAMR 1992 classification system specifies "Patterns and Intensity of Supports Needed" (i.e., "Intermittent, Limited, Extensive, and Pervasive"), which are not directly comparable with the degrees of severity in DSM-IV. The definition of developmental disabilities in Public Law 95-602 (1978) is not limited to Mental Retardation and is based on functional criteria. This law defines *developmental disability* as a disability attributable to a mental or physical impairment, manifested before age 22 years, likely to continue indefinitely, resulting in substantial limitation in three or more specified areas of functioning, and requiring specific and lifelong or extended care.

Diagnostic criteria for Mental Retardation

A. Significantly subaverage intellectual functioning: an IQ of approximately 70 or below on an individually administered IQ test (for infants, a clinical judgment of significantly subaverage intellectual functioning).

B. Concurrent deficits or impairments in present adaptive functioning (i.e., the person's effectiveness in meeting the standards expected for his or her age by his or her cultural group) in at least two of the following areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety.

C. The onset is before age 18 years.

Code based on degree of severity reflecting level of intellectual impairment:

317 Mild Mental Retardation: IQ level 50–55 to approximately 70
318.0 Moderate Mental Retardation: IQ level 35–40 to 50–55
318.1 Severe Mental Retardation: IQ level 20–25 to 35–40
318.2 Profound Mental Retardation: IQ level below 20 or 25
319 Mental Retardation, Severity Unspecified: when there is strong presumption of Mental Retardation but the person's intelligence is untestable by standard tests

Learning Disorders (*formerly* Academic Skills Disorders)

The section on Learning Disorders includes Reading Disorder, Mathematics Disorder, Disorder of Written Expression, and Learning Disorder Not Otherwise Specified.

Diagnostic Features

Learning Disorders are diagnosed when the individual's achievement on individually administered, standardized tests in reading, mathematics, or written expression is substantially below that expected for age, schooling, and level of intelligence. The learning problems significantly interfere with academic achievement or activities of daily living that require reading, mathematical, or writing skills. A variety of statistical approaches can be used to establish that a discrepancy is significant. *Substantially below* is usually defined as a discrepancy of more than 2 standard deviations between achievement and IQ. A smaller discrepancy between achievement and IQ (i.e., between 1 and 2 standard deviations) is sometimes used, especially in cases where an individual's performance on an IQ test may have been compromised by an associated disorder in cognitive processing, a comorbid mental disorder or general medical condition, or the individual's ethnic or cultural background. If a sensory deficit is